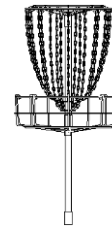
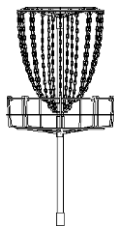


Frenchman's Bar Park Disc Golf Course



18 HOLE DESIGN CONCEPT
CLARK COUNTY PARKS
TIM FREEBURN



DISC GOLF BASICS

- The concept is the same as traditional golf, except instead of using a club to hit a ball into a hole, the player throws a flying disc (aka frisbee) into an elevated basket that is equivocal to the “hole.”
- Like traditional golf, the player starts at each hole’s tee box (known as a tee pad), and throws into the fairway, attempting to cover the maximum distance possible, eventually reaching the basket, and “putts” for the lowest score possible (the least number of throws).
- It is a fun, healthy, and environmentally friendly game that encourages outdoor activity, use of public lands, and can be played by all age levels and abilities.
- It is inexpensive: often FREE if you already own the discs needed, and discs are also quite inexpensive, ~\$15 each.



Image 1: Discraft Discatcher basket on unknown course. (Image courtesy: Discraft.com)

DISC GOLF AS A SPORT

- Disc golf is currently one of the fastest growing recreational sports in the U.S. and worldwide.
- Estimated number of new players is growing at rate of 8-12% per year.
- Number of new courses per year is growing at an estimated rate of 10-14% per year.
- Special Note: Clark County Parks currently has NO disc golf courses!



Figure 1: Number of new disc golf courses/year through 2011 was just under 3500 and continues to increase rapidly. (image courtesy: discgolfreview.com)

Community Benefits of Disc Golf

- **Economic**
 - Low cost of construction maintenance, and play
 - Quality “destination” courses attract players, tournaments and money to the local community and economy
- **Community Health**
 - Provides a low impact and safe means of exercise for all age groups and genders
 - Mental strategy is involved in negotiating obstacles
 - Reduction of mental fatigue
- **Environmental**
 - Aesthetic enhancement of park
 - Low resource impacts
- **Safety**
 - Crime deterrent as the park is utilized by more people
 - Many documented cases of disc golf courses acting as inexpensive solutions to unwanted activity within unsupervised, low-traffic park areas
- **Education**
 - Schools may introduce the course into their curricula for physics, physical fitness, ecology, urban planning, and other programs of study
- **Community Involvement**
 - Formal and informal games and tournaments bring community members together
 - Families and friends can share time together
 - Many documented cases of increased park user-ship and provides an activity that attracts people all year round

(Siniscalchi, Jason M., (2004) *The Personal and Community Benefits of Disc Golf to Rural America (and Beyond)*; Doctorate Thesis; School of Parks, Recreation and Tourism, West Virginia University).

COURSE OVERVIEW



BASKET



TEE PAD



APPROXIMATE FLIGHT PATH



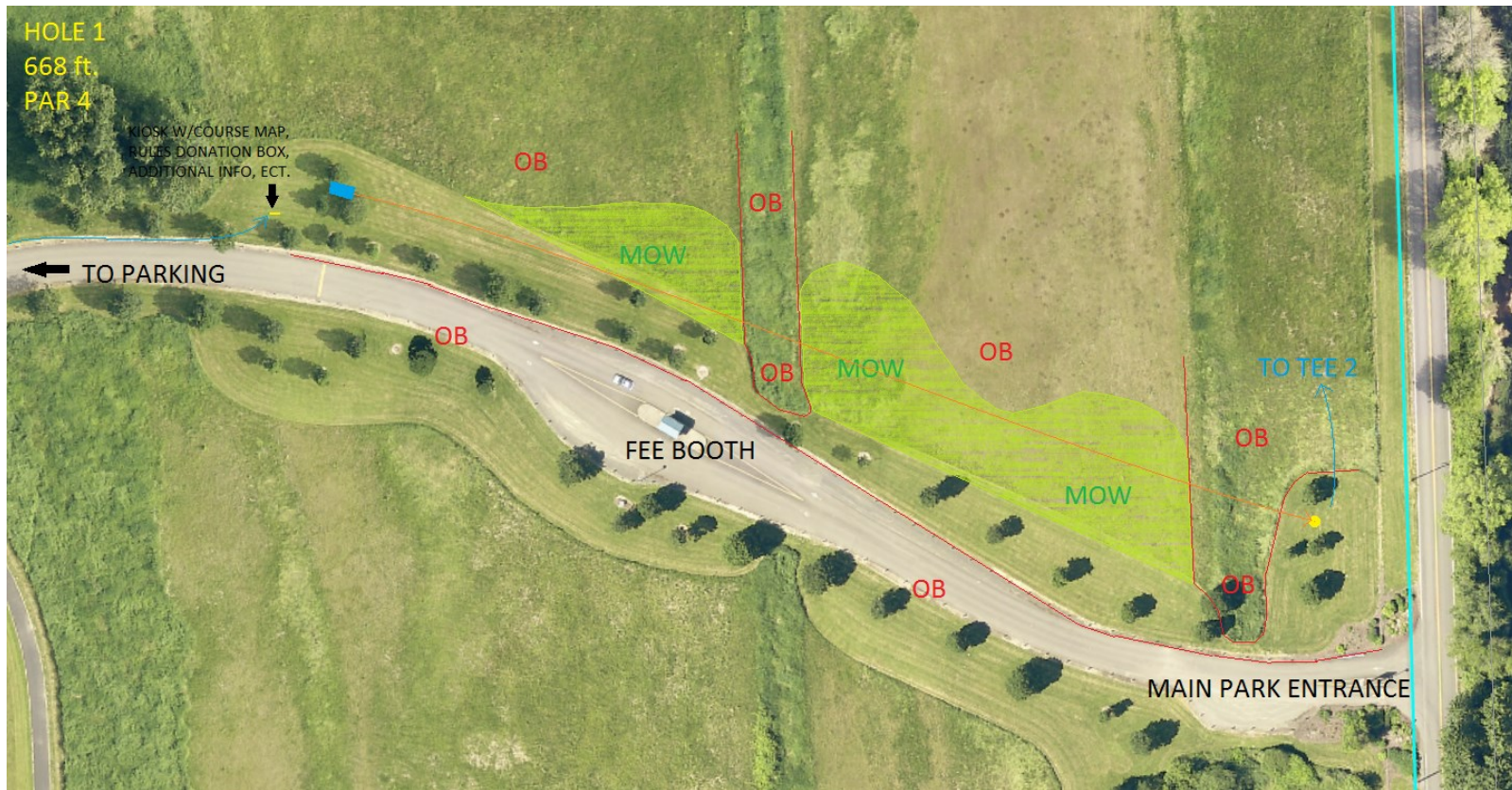
OUT OF BOUNDS

Frenchman's Bar Disc Golf Course

Hole	Length (ft.)	Par
1	668	4
2	406	3
3	423	3
4	853	5
5	1088	5
6	254	3
7	432	3
8	300	3
9	452	3
10	289	3
11	607	4
12	719	4
13	315	3
14	428	3
15	420	3
16	698	4
17	233	3
18	459	3
TOTAL	9044	62



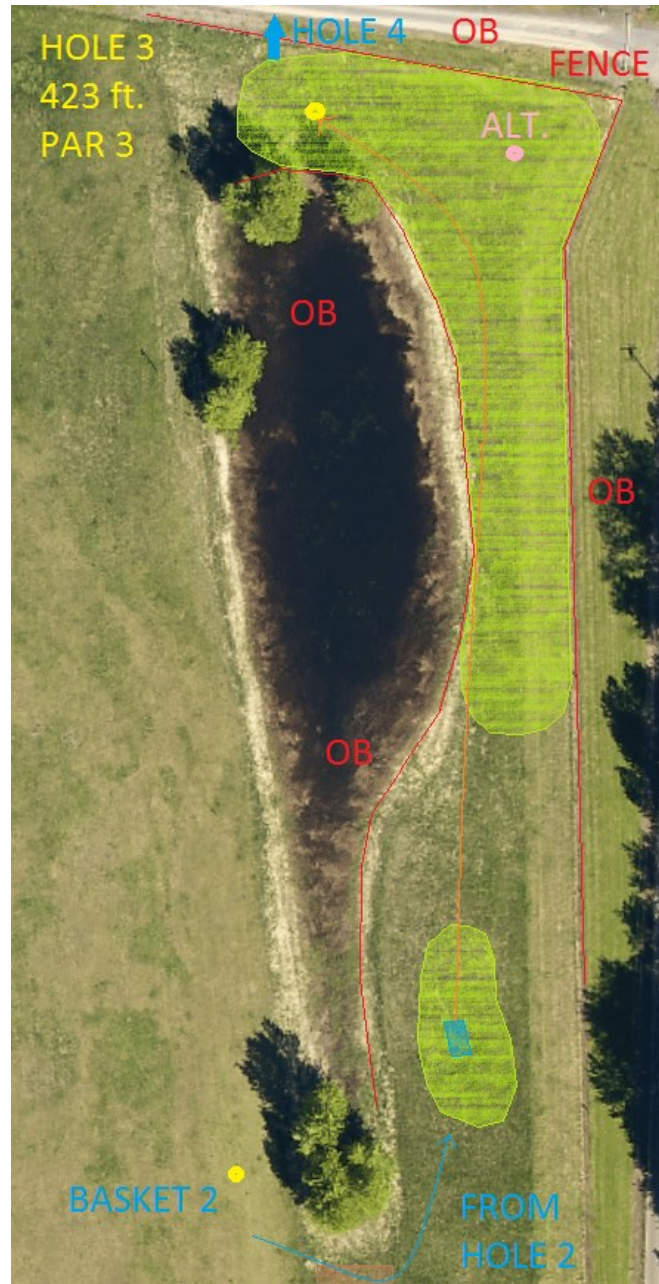
HOLE 1



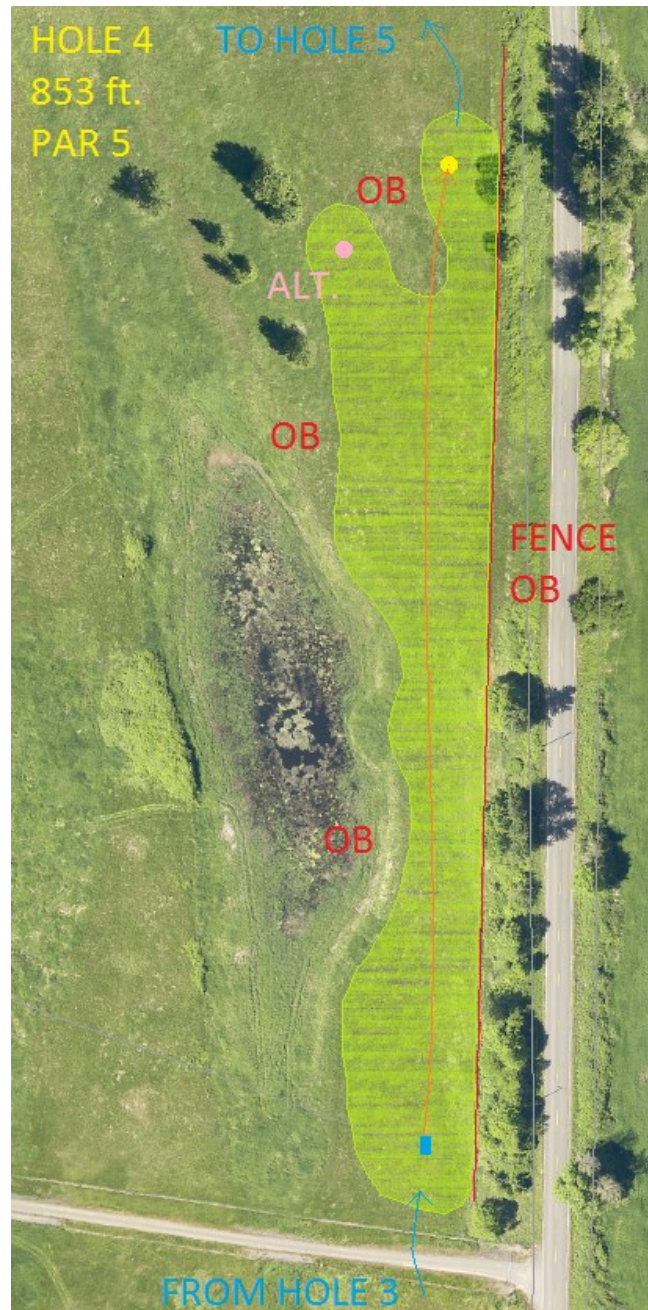
HOLE 2



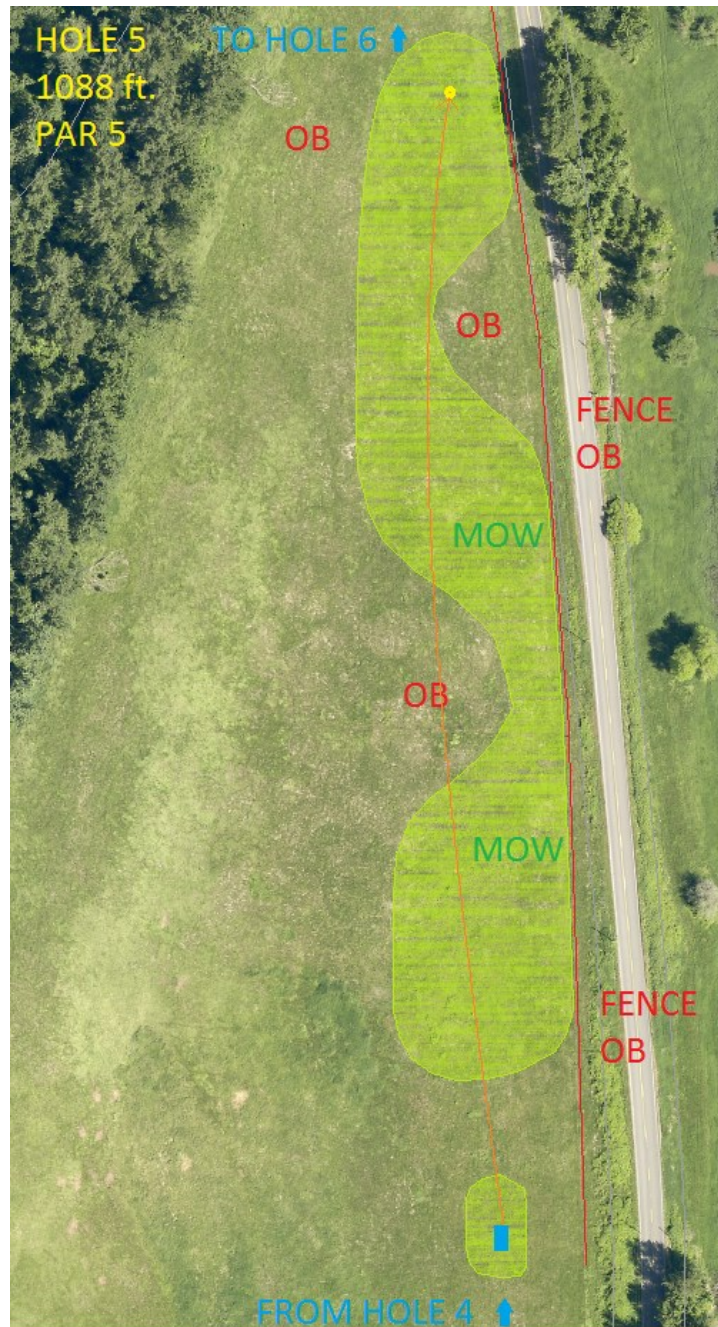
HOLE 3



HOLE 4



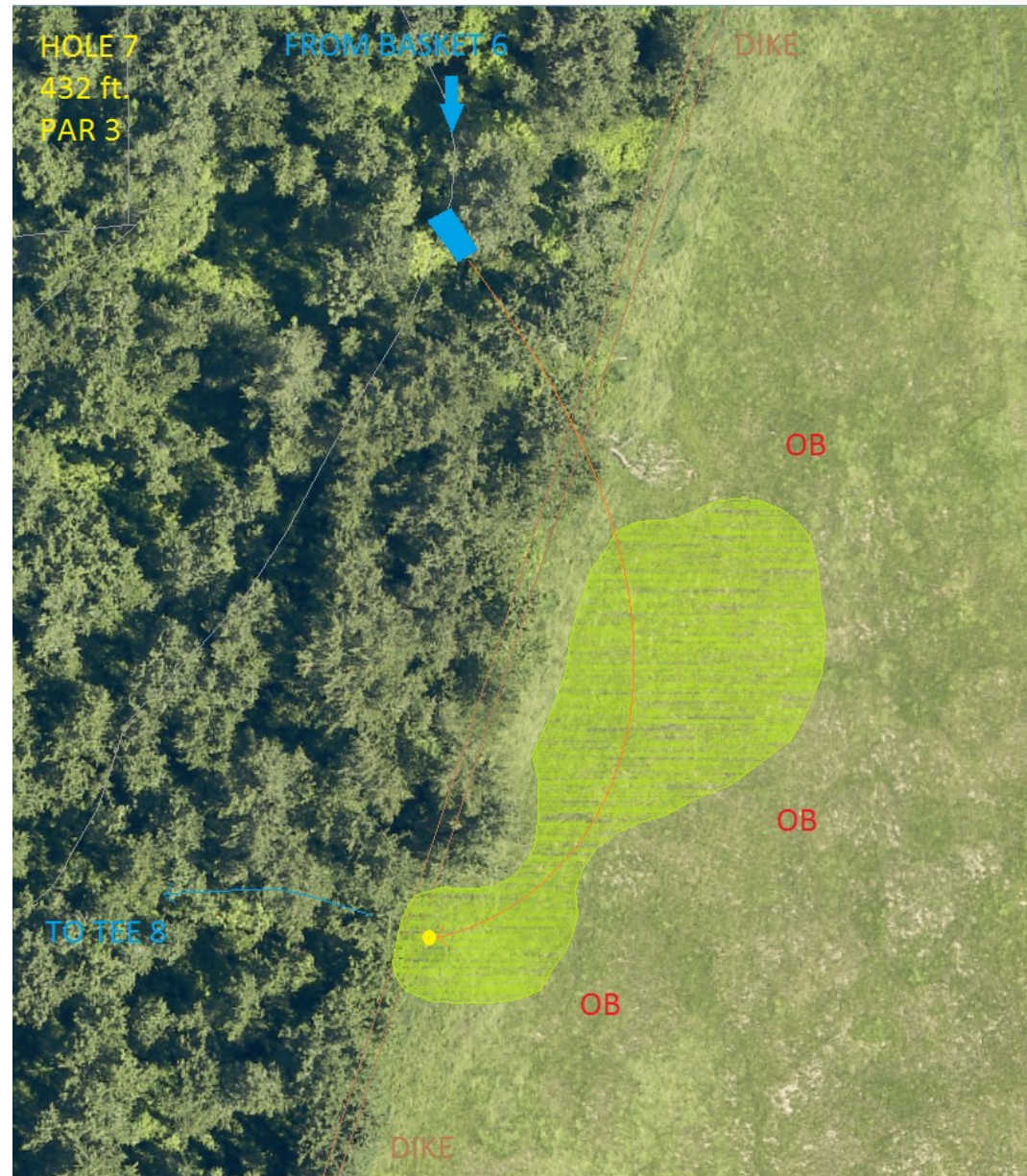
HOLE 5



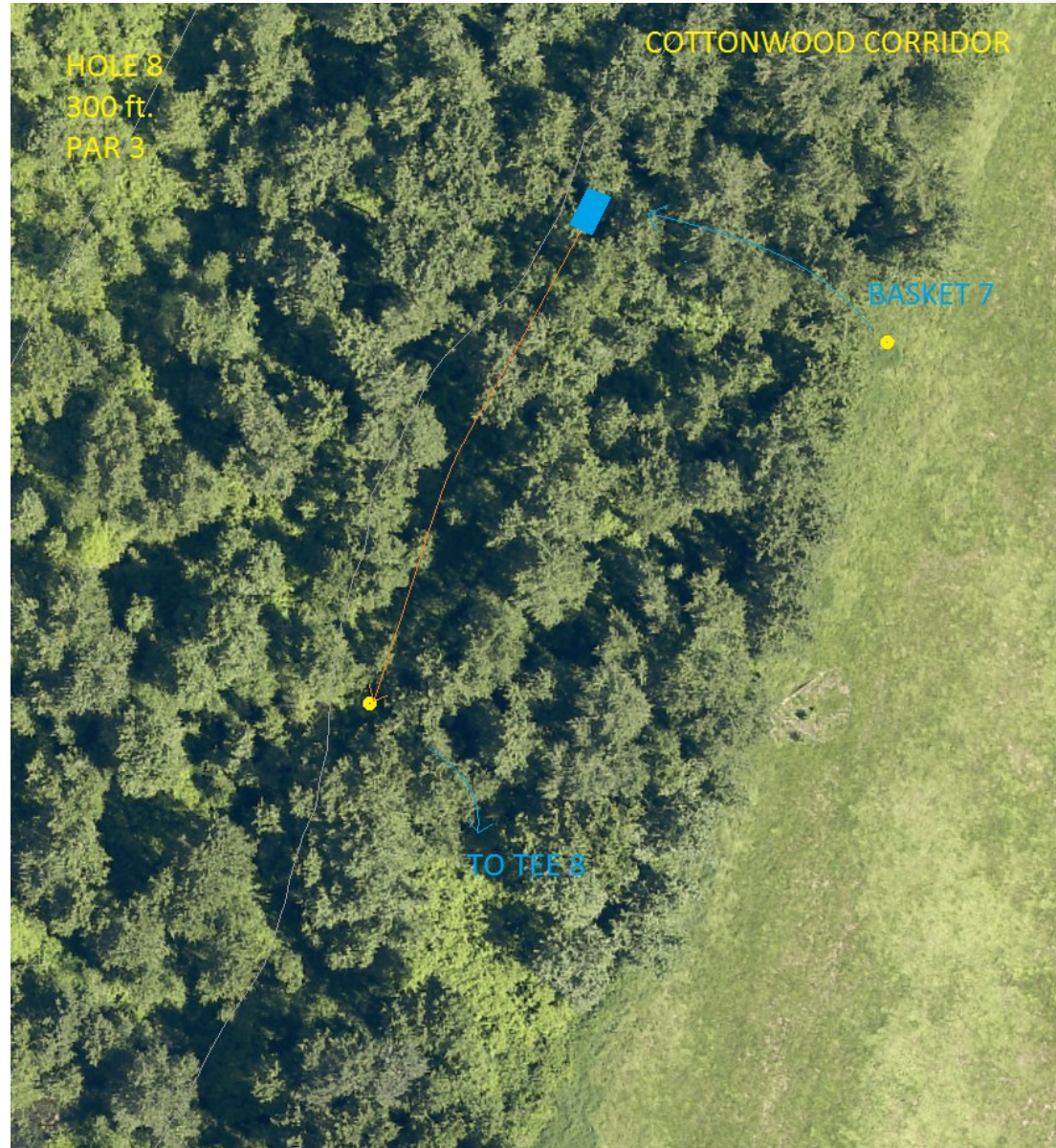
HOLE 6



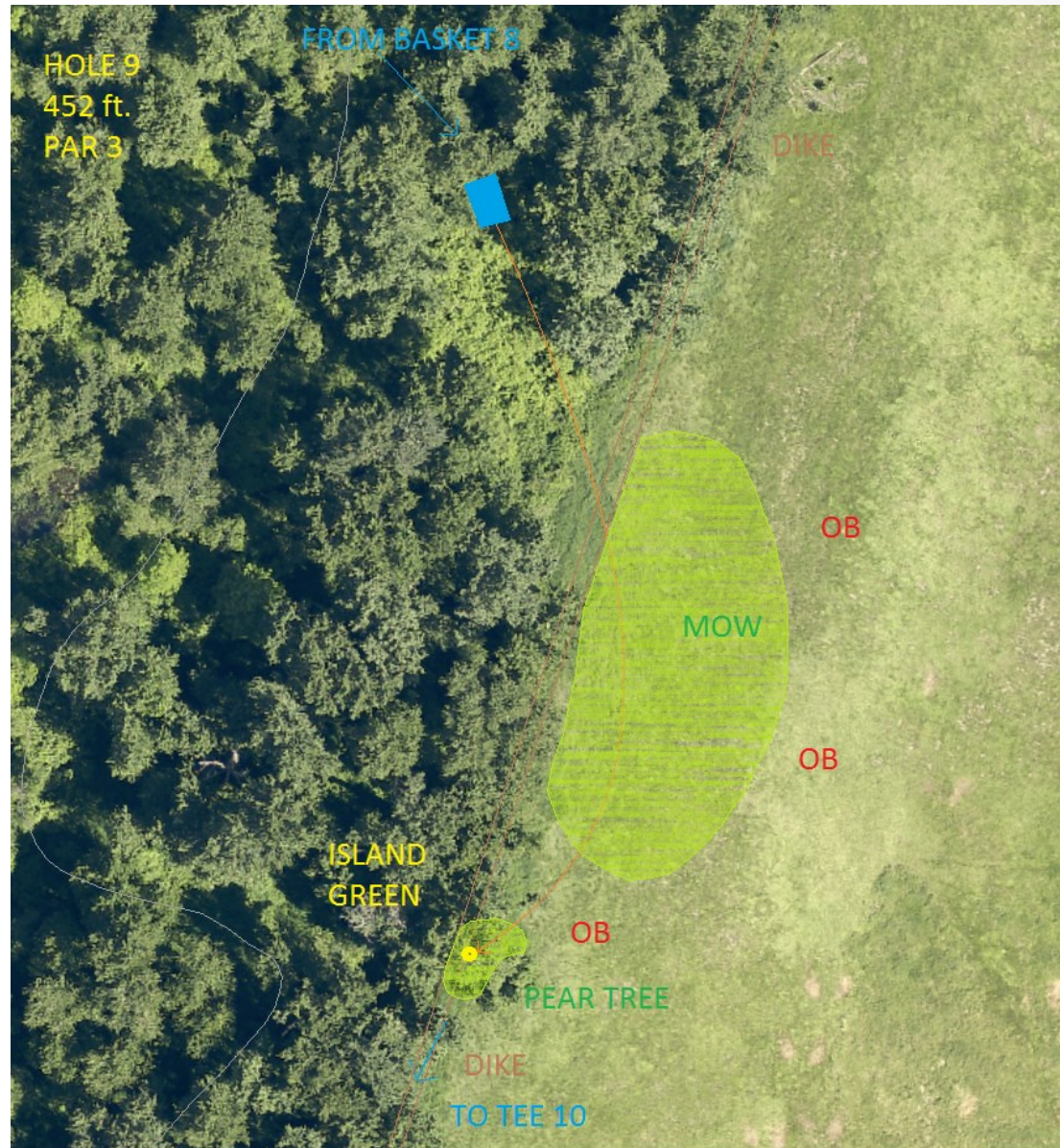
HOLE 7



HOLE 8



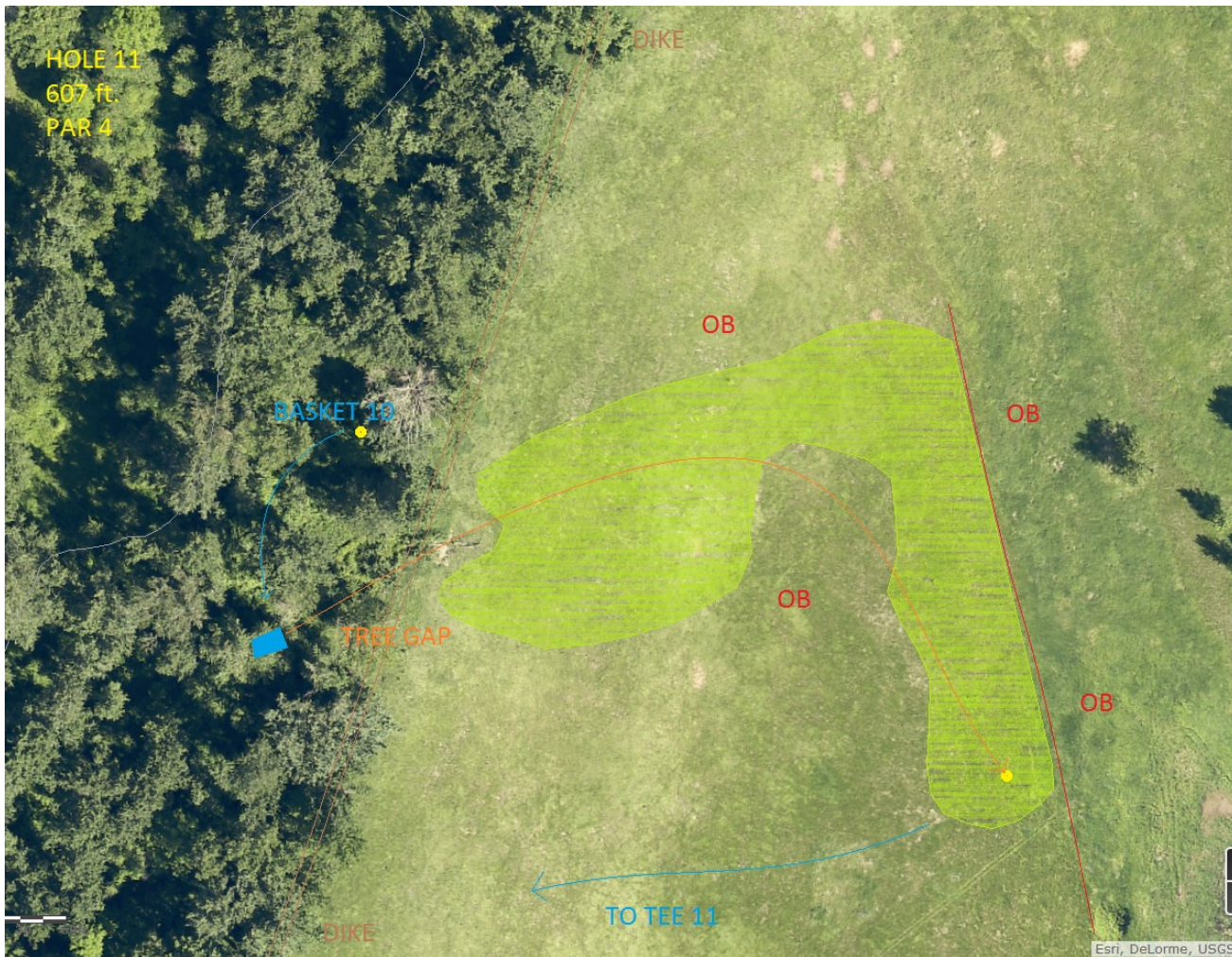
HOLE 9



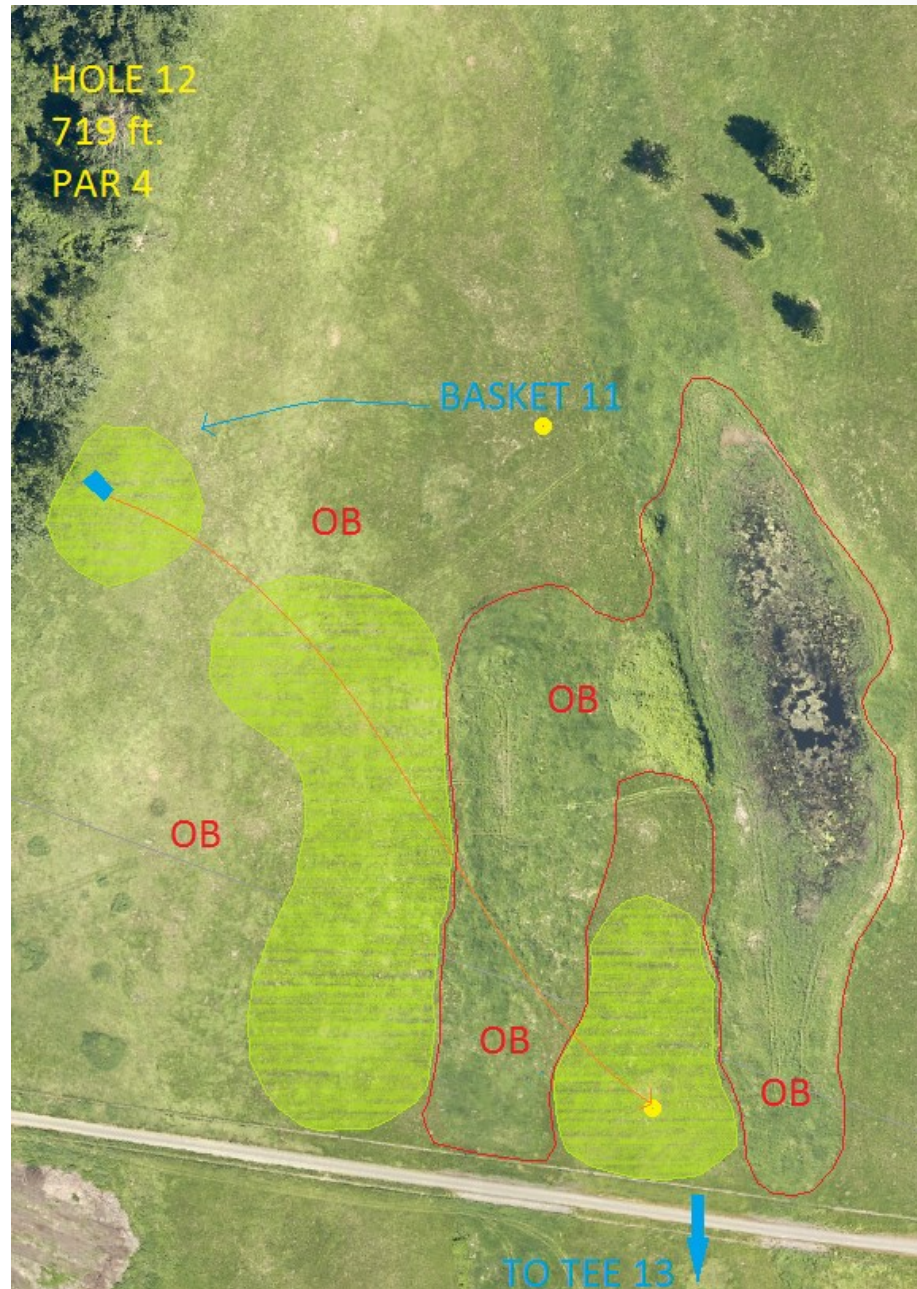
HOLE 10



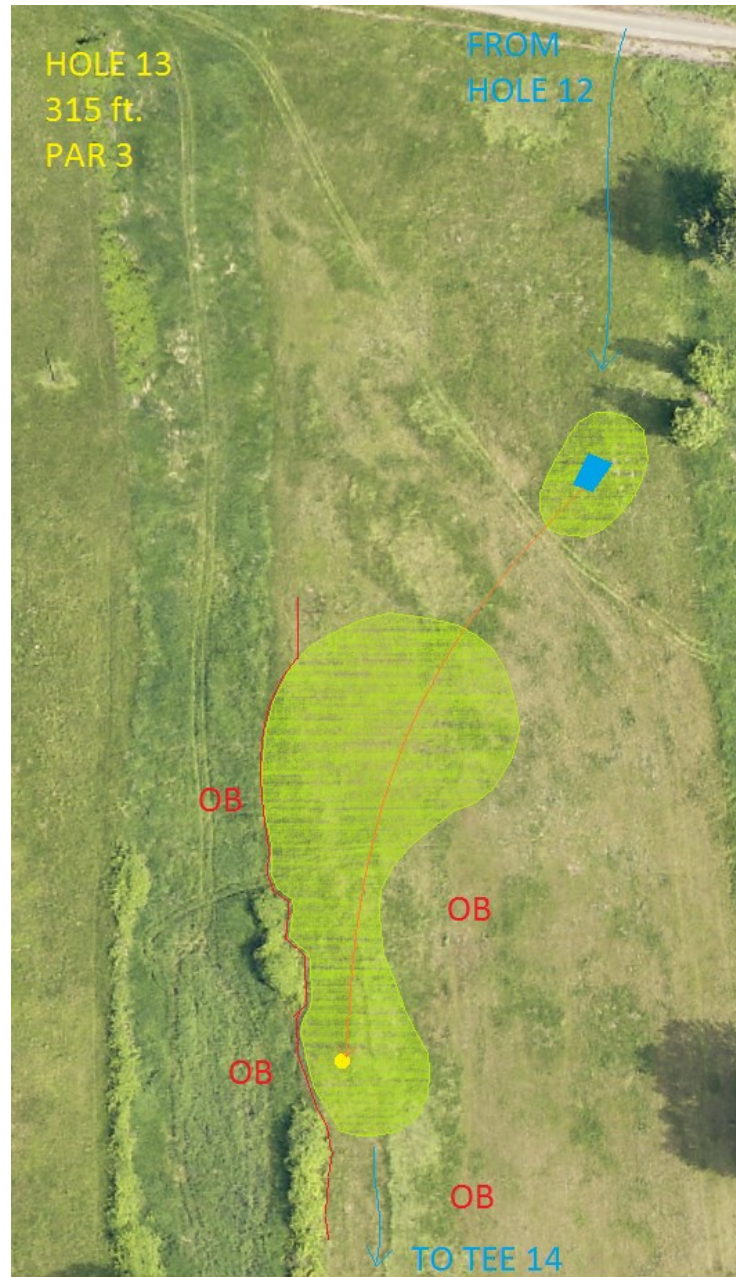
HOLE 11



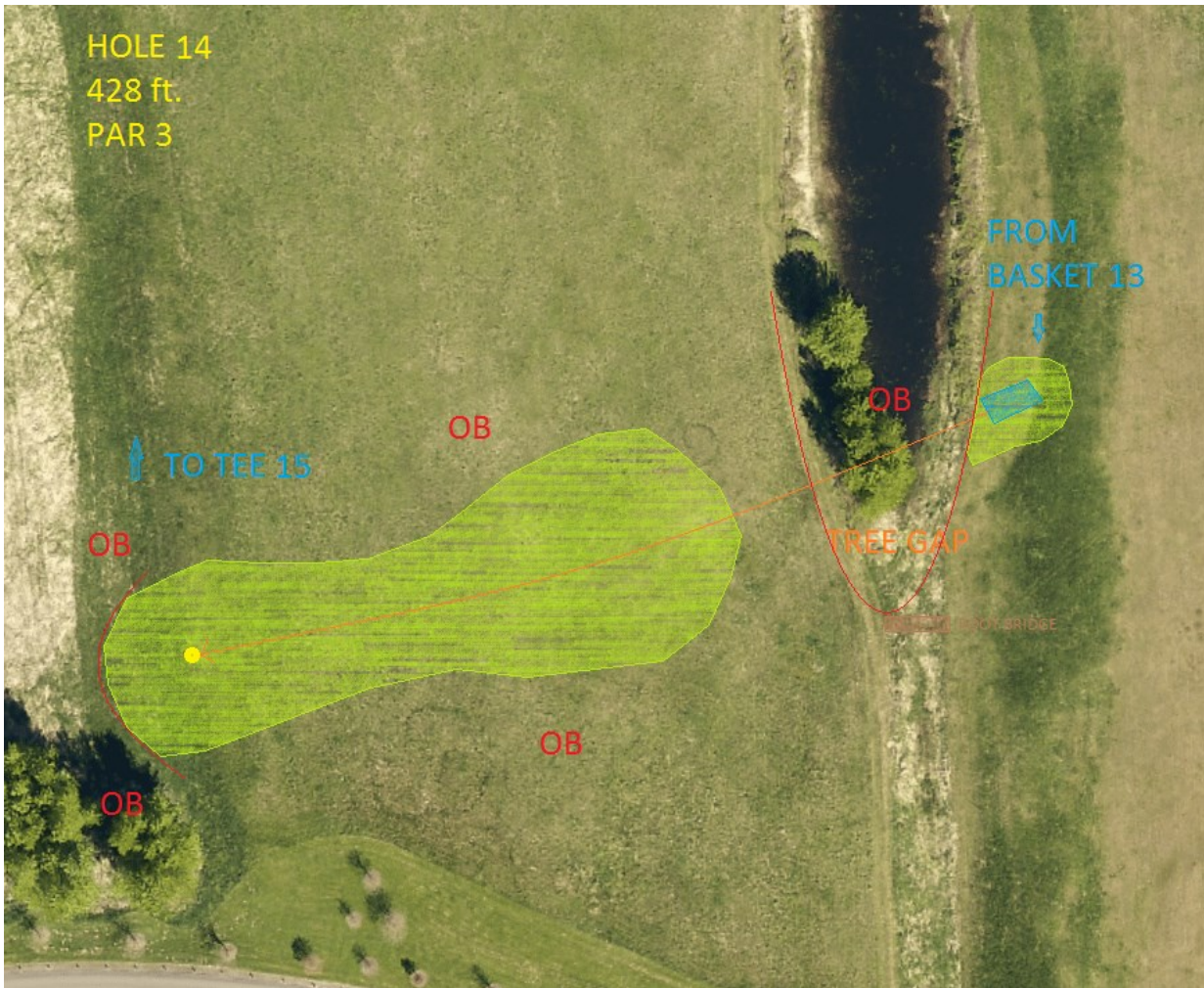
HOLE 12



HOLE 13



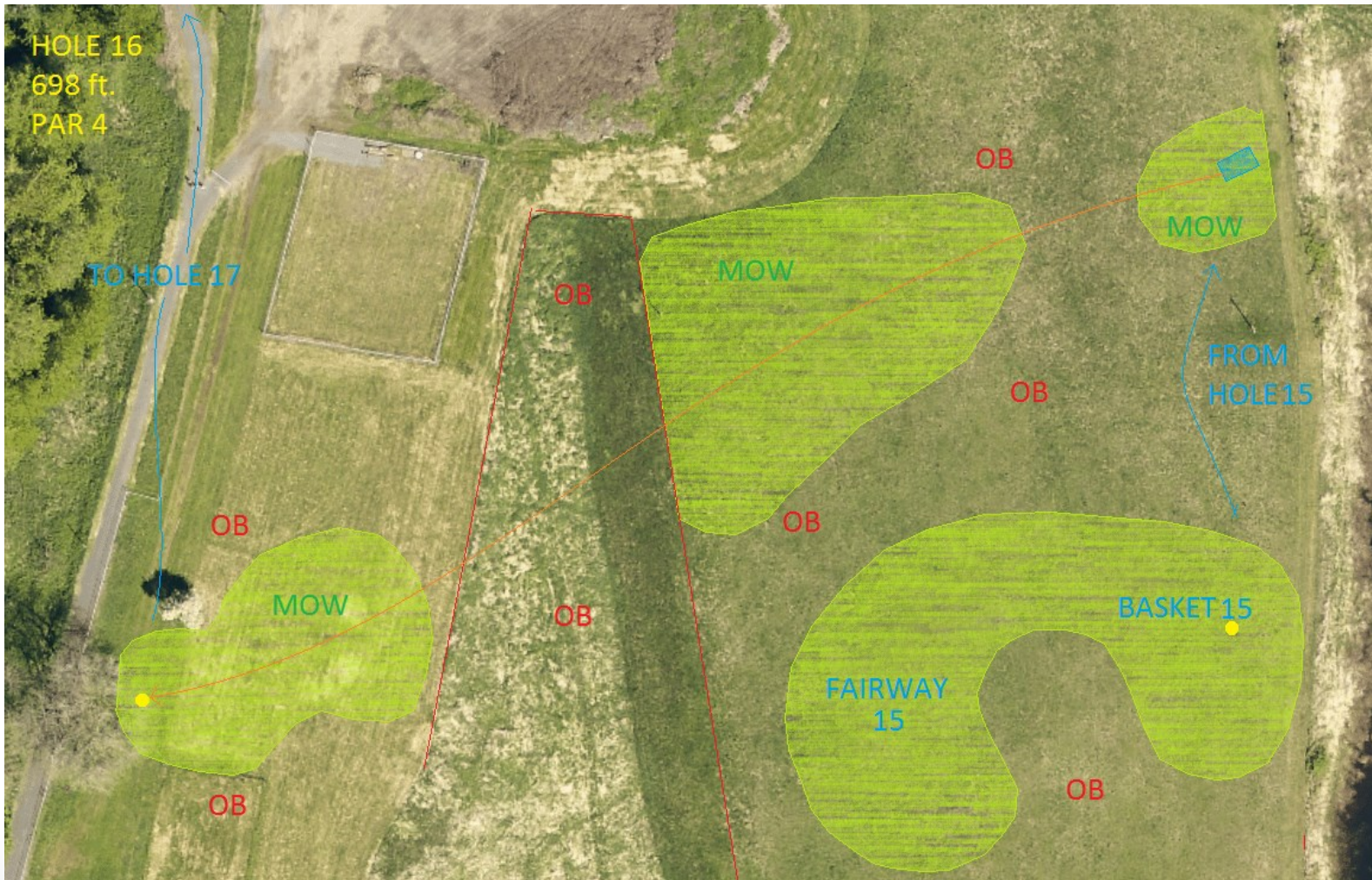
HOLE 14



HOLE 15



HOLE 16



HOLE 17



HOLE 18



Frenchman's Bar Disc Golf Course Details

- 18 holes, most holes are par 3, four par 4's, two par 5's, total par 62 (even par = 62).
- This could be built all at once, but we propose that it may also be built in two phases, South Phase and North Phase, as funding becomes available/is appropriated.
- Generally, all areas outside of the MOW areas will be staked off as out of bounds. Any other out of bounds areas will be marked with stakes and laid out on site as necessary.
- Fences and roads and any other obstacle that forms an obvious boundary will also be out of bounds.
- All wetland type areas (i.e. any areas that hold water during the winter months and off season) are out of bounds and generally off limits.
- It is recommended that these be marked as sensitive habitat to encourage people not to enter them. It is likely that golfers will encroach into these areas when hunting for errant discs.

Clark County Parks Responsibilities

- Provide normal mowing around the disc golf course.
- Provide several waste receptacles for the course and agree to empty them on a regular basis.
- Designate Parks Department personnel to work with volunteers and disc golf associations in coordinating the approval process for course layout and development, and coordinating any and all permits necessary for installation of the disc golf course (this is me for now).



Tee Pad Installation

- Tee pad locations will be graded and leveled prior to installation of tee pad. Compacted gravel may need to be laid as a substrate to pour concrete onto in some cases.
- Tee pads are to be 5'x10' poured concrete with textured surface for traction and player safety.



Images: <https://nextadventure.net/community/blog/blue-lake-work-party>

Basket Installation

- Baskets will be installed using steel sleeves installed in concrete per manufacturer specifications.
- Requires approximately 1 cubic foot of rock and concrete each.

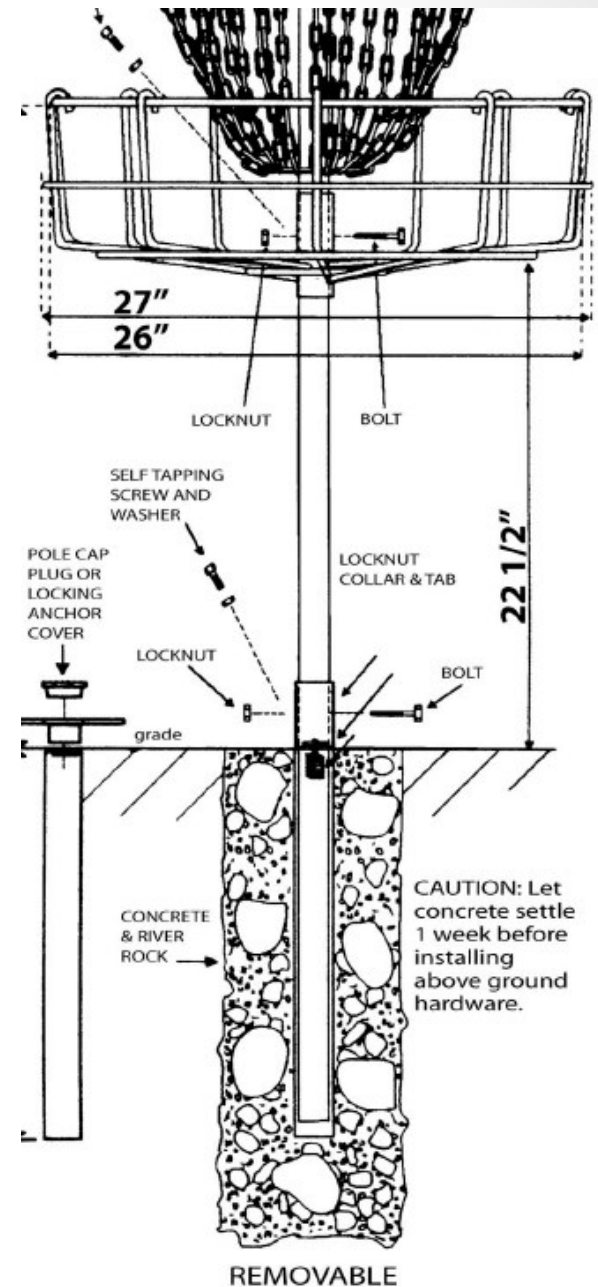


Figure courtesy Discraft Chainstar

Some Development Details



- Most areas are largely open and already established. A few holes will require some maintenance to remove under brush, branches, and a few small trees to clear disc flight paths. This work will be performed by volunteer work parties before the course opens.
- Other work parties will be organized on an as needed basis by local disc golf associations and myself to maintain the course on an ongoing basis once the course is complete.

Some Development Details

- It is possible that 2 of the holes, as currently designed, may require a simple bridge built to traverse the storm drainage swales that cut across these holes.
- These will be simple, inexpensive wooden structures similar to the image to the right.
- Cost estimate is about \$250 each and would be paid for by funds raised.
- These will be built and installed by volunteers, under county supervision to county standards.



Mowing Details

- County will need to mow ONLY those areas inside of the stakes on a regular basis, remaining field will be left native as “rough” out-of-bounds territory (but may require mowing occasionally as fire codes mandate).
- In most cases, one mower wide path should be cut to connect tee pad area to fairway and basket area, and then path should continue on to the next tee.
- There will be a lot of contouring and shaping of the fairway and green areas near the baskets to keep an attractive flow to the course. These details are estimated in the current design and will be established when setting out the course on site.



Former NY Giant and current "Live With Kelly & Michael" host Michael Strahan helps mow the lawn in Central Park's Sheep Meadow (Photo: @NYCParks)

Photo: <http://myupperwest.com/upper-west-side/uws-photo-of-the-day-michael-strahan-mowing-the-lawn-in-central-park/>

Mowing Square Footage and Expense

Total area currently rough mowed will no longer need to be mowed, this will be the "rough" areas of the golf course and should be left long and natural to create a greater challenge for the golfers.

(within the scope of the fire marshal requirements, that is)

Mowed area by hole:					
Hole	Tee Pad (sq.ft.)	Fairway Area (sq.ft.)	Tee Pad (acres)	Fairway Area (acres)	
1	N/A	25000	N/A	0.574	
2	2200	24000	0.051	0.551	
3	2500	20500	0.057	0.471	
4	1250	68000	0.029	1.561	
5	1500	84000	0.034	1.928	
6	7000	N/A	0.161	N/A	
7	N/A	24000	N/A	0.551	
8	N/A	N/A	N/A	N/A	
9	N/A	25000	N/A	0.574	
10	N/A	N/A	N/A	N/A	
11	N/A	68000	N/A	1.561	
12	1000	75000	0.023	1.722	
13	1250	14500	0.029	0.333	
14	750	18000	0.017	0.413	
15	1200	38000	0.028	0.872	
16	1000	34500	0.023	0.792	
17	N/A	N/A	N/A	N/A	
18	N/A	N/A	N/A	N/A	
Total	19650	518500	0.451	11.903	
Grand total	538150sq. ft.		12.354 acres		
Approximate area currently rough mowed on this part of the property:					
	1858000sq. ft.		42.654 acres		
ANNUAL EXPENSE			Calculated using a mow rate of \$60.00 per acre		
Current			Proposed		
Acreage	42.654		Difference in Acreage		30.300
Times mowed per year	2		Times mowed per year		2
	85.30762167				60.599
Rate (\$ per acre)	\$60.00		Rate (\$ per acre)		\$60.00
TOTAL	\$5,118.46				\$3,635.95
			Plus		
			Course Acreage		12.354
		(Twice a month through 6 major growth months April-September)	Times mowed per year		12
					148.251
			Rate (\$ per acre)		\$60.00
					\$8,895.04
			TOTAL		\$12,530.99

Estimated Cost Summary

Item	Quantity	Unit Cost	Total Cost	Details
<u>Expenses</u>				
Disc Golf Baskets	19		\$3,000.00	Purchased from Portland Parks & Rec.
Basket Ground Sleeves	37	\$17.00	\$629.00	2 per hole + practive basket
Concrete Tee Pads (5'x10')	18	\$150.00	\$2,700.00	4" deep = 0.60cu.yards/pad = 25qty. 80lb. bags/pad x \$3.75/bag
Concrete for Baskets (Sleeve Installation)	37	\$3.75	\$277.50	1cu.ft./sleeve x 37 sleeves = 37 cu.ft. * 2qty. 80lb. Bags/cu.ft. = 74 bags x \$3.75/bag
Concrete for Signage	19	\$3.75	\$142.50	1cu.ft./sign x 19 sleeves = 19 cu.ft. * 2qty. 80lb. Bags/cu.ft. = 38 bags x \$3.75/bag
Tee signs and information kiosk sign	19	\$100.00	\$1,900.00	
Padlocks	20	\$5.19	\$103.80	
		Total	\$8,752.80	
				Approximate expense per hole = \$486.27
<u>Income</u>				
Hole sponsorship	18	\$500.00	\$9,000.00	
		Total	\$9,000.00	



Other Expenses



- Garbage:
 - There should be several cans around the course and they will need to be emptied regularly.
 - Maintenance staff will have to do this occasionally during the off season.
 - We recommend having park ambassadors pick up this duty during the busy summer season, using a gator and the dumpster facilities already on site.
- Maintenance:
 - Occasionally, the ground around tee pads and baskets can get thoroughly worn and may require a layer of gravel or wood chips to stabilize the soil.
 - The hope is that this expense can be picked up through the placement of a donation box placed at the kiosk at the first tee.
 - There are documented cases of this working at many other disc golf courses including Pier Park in Portland.

Summary:

- Disc golf is currently one of the fastest growing recreational sports in the U.S. and worldwide.
- Having a disc golf course in the community has many benefits including: economic boost, community health improvement, low environmental impact, aesthetic improvement, crime deterrent, educational benefits, and increased park user-ship and community interaction and involvement.
- Installation expenses are low and much of this cost and the ongoing maintenance cost can be achieved through volunteerism.
- Property maintenance costs will increase, but the benefits to the park, the county, and the community are priceless.

Contact info:

- Surely there will be other questions, comments and concerns. Please contact me at any time.
- Tim Freeburn tim.freeburn@clark.wa.gov 503-830-1667



Photo: <https://susansternberg.files.wordpress.com/2011/10/use-1991-silhouette-cj-putts.jpg>